Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of:

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Comment and data on actions to accelerate	)	GN Docket No. 16-46
adoption and accessibility of broadband-enabled	)	
health care solutions and advanced technologies	)	

ATA is pleased to respond to this request for comment and data related to broadband-enabled healthcare solutions and advanced technologies.

The communications requirements for U.S. health sector activity are accelerating and becoming more widespread. There is an increasing volume of broadband episodes for health care and many of them outside the confines of a hospital, clinic or even a physician's office. There are an increasing number of broadband endpoints for health care delivery, reaching out to the individual consumer, regardless of location. Consumers increasing rely on the internet for access to an on-demand, 24/7 network of appropriate and available medical information and assistance from a wide variety of health professionals. Additionally, health information is increasing digital and dependent on telecommunications and technology infrastructure that can collect, process, exchange, store and analyze information. Thus, the major needs of 21st century health care are for connections and capacity among consumers and providers regarding health services and health data.

We believe the Commission has an opportunity to take the lead in envisioning, accommodating, fostering, and facilitating the needs and telecommunications solutions for federal health care policy regarding emerging communications tools, such as 5G and the Internet of Things. The Commission has an important function in leveraging the emerging public support to make sure the infrastructure and broadband services are in place to make these ideas a reality.

Ultimately, ATA supports a nationwide telecommunications arrangement for health services and data that is open architecture, internet-based, and meets federal standards for security and privacy. The first stage might be a network available for the health care sites of federal agencies, such as the Departments of Health and Human Services, Defense, and Veterans Affairs, and federally-funded health sites, such as community health centers. An intermediate stage might be to extend to other federally-related sites, such as Medicaid and Medicare consumer and providers.

We note that this Public Notice seeks an extensive and voluminous amount of information regarding the full range of current and future issues related to telemedicine and related health and telecommunications. ATA has provided voluminous recommendations and comments to the Commission on the areas covered here as well as with specific docket items over the past 22 years. However, for this comment opportunity, we have chosen to provide information in a selected number of broad areas contained in the Notice that might prove helpful to the Commission and are available will be happy to answer questions and have discussions around specific areas of interest as the Commission continues its investigation.

ATA defines telemedicine as the use of telecommunications technology tools to provide patient care. This is an intentionally broad description that covers an array of applications sometimes labeled as telehealth, e-health, mHealth and connected health. Since 1993 ATA and our membership of over 500 organizations and 10,000 individuals have been involved in almost every aspect of the areas covered in this Notice. This includes:

- being a source of information and ideas regarding telemedicine for policy makers, industry leaders, providers and others;
- providing information on the current state and utilization of telemedicine;
- documenting and sharing best practices and developing formal practice guidelines by specialty areas;
- documenting the value proposition of telemedicine for payers, providers, investors and regulators;
- identifying gaps and barriers in public policy and crafting solutions to address such needs on federal and state levels;
- accelerating adoption of telemedicine by health systems and its acceptance and use by patients and consumers; and
- raising consumer awareness of the benefits of telemedicine.

Current use of telecommunications to provide patient services

In this Notice, the Commission requests "information and data on the types, impact, scale, and benefits of broadband enabled services and technologies used for the delivery of health care. How is broadband *currently* being used to augment or transform existing health care delivery? What types of health care settings are using broadband-enabled services and technologies besides large medical hospitals? What variety of medical issues are they used for? Where are these health care settings located? What are some of the *future plans* for using broadband-enabled health services and technologies – not just by clinicians and hospitals but also by other participants in the broader health ecosystem?"

There is no doubt that telemedicine has already leapt beyond the experimental stage. ATA estimates that at least 25 million Americans will have benefitted from the use of telemedicine this year. Its use is both growing in the number of services and patients that are served but also expanding in the types of services that are being delivered. Once confined to rural pilot projects demonstrating the technology, telemedicine today is in use in every major health system and now being used to expand services beyond doctors' offices to the home, work place or wherever it is needed.

The leading remote health services in common use today are described below. Each involves different institutions and areas of specialty and each have different telecommunications and technology requirements. Not included in this list are technology applications and services that are not directly related to providing individual healthcare such as information web sites, electronic medical records, personal emergency response services, medical transcription and billing services and broad wellness applications.

- **Teleradiology.** Teleradiology has been used continuously since 1947. Practically every major hospital in the country uses teleradiology, either to send images to radiologists located at a

distant location. A common practice is to contract with a third party teleradiology company to have after-hours or "night-hawk," services. Radiology services include preliminary reads for emergency room and other emergency cases and final reads for the official patient record and in billing. Over the last decade, the growing use of complex CT and MRI scans in emergency rooms requiring a skilled professional to interpret the results, has been a major factor in the expansion of teleradiology, which is quickly becoming a standard of care for all emergency rooms.

- **Remote cardiac and other diagnostic monitoring.** Experiments with external cardiac monitoring goes back to 1887. Remote cardiac monitoring allows ECG monitoring of ambulatory patients with suspected cardiac arrhythmias. They may be patient or event activated or real time continuous monitoring. The device is prescribed by a cardiologist and the data is often sent to an Independent Diagnostic Testing Facility. In addition, there is a growing use of remote monitoring for INR for patients on long term or lifetime anticoagulation therapy. Remote monitoring of implanted cardiac devices is a related application. For more than 50 years, pacemakers and related cardiac devices have been implanted. Trans-telephonic monitoring of the devices is offered by all major manufacturers of the devices. Remote monitoring for arrhythmias and implantable devices account for over a million patients.

- **Neurophysiologic monitoring.** Approximately 80 percent of all operations requiring live patient monitoring by a neurologist are conducted remotely, often by an independent neurophysiologic monitoring company. The neurophysiological monitoring market is largely made up of numerous small companies across the country.

- **Consumers receiving a direct consult from independent, video-based and/or audio-based online health sites**. This includes web sites and physician-patient e-consults that provide direct patient and consumer medical services and second opinions via the Internet. Some sites use live video while others are based on audio and data communications. There are a great variety in the technologies used, the financial arrangements and the organizational structure of these services but most are covered by private and employer-sponsored plans and increasingly available under state Medicaid programs.

- **Remote intensivist services for ICUs.** Telemedicine is used to provide the services of intensivists to approximately 13 percent of all ICU beds in the United States. Different technologies are used to make the link. Many employ the use of computerized decision making software to assist the physician with complicated cases.

- **Remote telemental health consultations.** This includes the use in institutions and private patient services by individual mental health professionals.

- **Multi-purpose clinical services provided through institutional networks.** These networks are the historic heart of telemedicine services. They link hospitals clinics and physician offices. This may include a hub-and-spoke network based at a tertiary care facility or an independent network connected to a variety of institutions. These networks are focused on clinical services but may also be used for medical education and administrative services as well.

- **Remote patient monitoring for chronic diseases.** This employs technology to remotely collect and send personal data to a health provider or monitoring station for interpretation. The leading uses include monitoring vital signs of patients with such chronic diseases as CHF, COPD and advanced diabetes. Also, it is used to monitor the conditions of recently discharged patients. The largest provider is the Veterans Administration with approximately 100,000 patients being remotely monitored. A variety of wireless and wired technologies are used. There is a great variation in the data being collected and how it is used.

- **Remote neurology services for stroke**. Used primarily in emergency rooms to provide rapid diagnoses of a stroke by a distant specialist. Telestroke networks are now in place in hundreds of hospitals and care centers nationwide and over 100,000 patients will receive services through such services this year.
- **Remote patient care at walk-in clinics**. Available at retail clinics located at a growing number of stores and employer sites, telemedicine is used to link into specialty providers and to handle occasionally overcrowded sites for patients with simple health problems.

Also, the Commission should be aware of federal programs that provide direct health services to targeted populations. Three of these are worth noting in their use of telemedicine and could be potential sources of information to the Commission regarding their experiences and thoughts about the availability of broadband services.

- **U.S. Veterans Health Administration.** Using live and store and forward technology specialists are connected to VA facilities from a variety of locations including private physician offices. Annual growth in the number of patients receiving services via telemedicine is conservatively estimated at about 10% this year. It is estimated that over 12% of veterans accessing VA health services benefit from telemedicine.
- **U.S. Department of Defense.** Services use closed networks including a specialized world-wide teledermatology system and links between military hospitals in the U.S. and overseas. Remote imaging and other specialty services are sometimes used to connect to field hospitals. By federal law DOD physicians are exempt from multiple state licensure requirements.
- **Correctional healthcare to federal and state prison systems and local jails**. Through contracts with a health system or private correctional healthcare provider a host of services are delivered to prisoners including wound care, mental health counseling and a variety of other medical services. Practically every large correctional care facility in the U.S. is either using telemedicine or plans to use it.

Issues related to the use of telecommunications in the delivery of patient services.

The Commission also seeks to "understand the full range of issues that might be affecting the development and adoption of broadband-enabled technology and services in health care. What non-technical impediments or issues currently exist in the provision of broadband-enabled health technology services? Are there any circumstances or practical considerations (e.g., cost, funding, and training) that may be creating disincentives for clinicians and health care settings to offer broadband-enabled health services and technologies, such as telehealth and telemedicine? If so, please describe what they are, including the extent and nature of the Commission's authority to address them."

Here are ATA's list of current policy priorities, which identify the critical barriers and gaps in public policy that need to be addressed. These priorities included proposed changed in the FCC's broadband deployment and universal service programs.

ATA supports public policies at both state and federal levels for patients, providers and payers to realize the benefits of telemedicine. We base our priorities on five principles:

- Eliminate artificial government barriers to telehealth, such as geographic discrimination and restrictions on the use of telehealth in managed care;

- Prevent new barriers to telehealth, such as clinical practice rules that impose higher standards for telehealth-provided services than in-person care;
- Encourage use of telehealth to reduce health delivery problems, such as provider shortages;
- Promote payment and service delivery models to increase consumer and payer value using telemedicine: and
- Enhance patient choice, outcomes, convenience, and satisfaction.

IMPROVE COVERAGE AND PARITY FOR TELEMEDICINE SERVICES BY ALL PAYERS

Medicare Coverage for Telehealth

ATA supports Congressional enactment of the CHRONIC Care (S. 870), CONNECT for Health, Telehealth Enhancement, and Medicare Telehealth Parity proposals. In particular, Medicare should:

Allow telehealth and remote patient monitoring in payment and service innovations. ATA believes providers in value-based payment innovations, such as Medicare Advantage and accountable care organizations, should have the flexibility to fully use telehealth and patient monitoring. Their coverage flexibility should be proportional to their financial risk.

Improve care of costly chronic conditions. Medicare relies on an outmoded approach to managing the needs and costs for the growing number of beneficiaries with multiple chronic conditions, who are homebound, or at-risk for inpatient stays. To improve care for beneficiaries:

- Start remote patient monitoring for beneficiaries under chronic care management for the medical conditions used for the hospital readmission reduction program;
- Adjust Medicare payment methods for federally-qualified health centers to facilitate the provision of chronic care coordination and remote monitoring;
- Reward hospitals for extra reductions in readmissions by sharing the extra savings and, thus, compensate a hospital for costs related to patient monitoring, home video, etc.; and
- Authorize a state's Medicaid "health home" to also cover Medicare beneficiaries in the state.

Remove artificial coverage barriers in fee-for-service Medicare. Congress should remove statutory barriers in Social Security Act section 1834(m) and allow Medicare telehealth services for:

- Services delivered wherever the beneficiary is, especially their home (e.g., kidney dialysis);
- The almost 80% of Medicare beneficiaries not covered because they live in a "metropolitan area," notably for stroke diagnosis and federally qualified health centers;
- "Store-and-forward" for services such as wound management and diabetic retinopathy;
- Provider services otherwise covered by Medicare, such as physical therapy, occupational therapy, and speech-language-hearing services; and
- An already-covered health procedure rendered by a telehealth method.

Medicaid Coverage for Telehealth

Every state Medicaid program covers some telehealth -- and each state can improve. Nothing in Federal law or regulations bars the coverage of telehealth-provided services. Also, CMS should

notify states that Medicaid should cover telehealth-provided services statewide and comparable to in-person services, unless the state is approved for a waiver of these federal requirements.

ATA will work with our members, state officials and stakeholder organizations on innovations to:

- Allow for innovative payment and service delivery models using telehealth, such as managed care plans, accountable care organizations, and dual eligible initiatives;
- Provide telemedicine coverage for specialty services and conditions related to substance abuse, high-risk pregnancies and premature births, and autism;
- Integrate remote patient monitoring with home and community-based and "health home" programs for people with chronic conditions to continue living at home and avoid expensive inpatient facilities; and
- Allow telehealth coverage to anywhere, anytime, including homes, schools, and urban areas;
- Maximize video use to reduce spending for non-emergency patient transport and unnecessary disruption for patients.

Other Major Federal and State Coverage Opportunities

- Federal health benefit plans: They should take full advantage of the benefits and efficiencies telemedicine offers. There is no legal basis to deny a telehealth-provided claim for a service that is already covered when using a traditional delivery method, except for Medicare law.
- State-regulated private insurance: ATA supports legislation for parity between telehealth and in-person coverage in the 17 states that still allow such discrimination.
- State employee health plans: Twenty-six states have some coverage for telehealth under at least one state employee health plan. ATA urges states to ensure coverage parity for its employees.
- Worker's compensation: ATA urges states to close coverage loopholes and ensure telehealth parity for plans covering injured workers.
- Health plan network adequacy: ATA encourages states to modernize with the National Association of Insurance Commissioners reforms for assuring sufficient access to providers using telemedicine.

REMOVE LICENSING BOARD BARRIERS TO TELEMEDICINE

Telemedicine is a way of delivering health services and should be regulated comparably with services provided in-person. An increasing problem is states adopting clinical practice rules with higher specifications for telehealth than in-person care, such as prerequisites for an in-person assessment, established relationship, or physical examination. Extra, often higher, standards for telemedicine are bad for patients' access and choice. A result of the U.S. Supreme Court's recent decision on *N.C. State Bd. of Dental Examiner v. FTC* is that state licensing boards, as traditionally constituted, are now exposed to the risk of federal lawsuit for anti-competitive rules and other actions.

Although providers of telemedicine services are reimbursed based on their location, state licensing laws and regulations generally require they also be licensed and follow the practice rules of the patient's location. This impedes smooth and efficient interstate use of telemedicine and the mobile patterns of 21st century patients, providers, and health delivery systems. Such state-by-state approaches inhibit people from receiving critical, often life-saving medical services that may be

available to their neighbors living just across the state line. These barriers also cost health professionals and taxpayers hundreds of millions of dollars each year.

ATA encourages state lawmakers to accommodate interstate care. A range of options have been proposed for licensure reform, including multi-state compacts based on mutual recognition. We support state action to join the pending compacts for nurses, physical therapists, physicians, and psychologists.

Further, for many federal health professionals, one state license is now sufficient to serve patients in any state. The "one state license" model should be used for all federal health care, notably agencies (such as the Department of Veterans Affairs and of Health and Human Services), health benefit programs (such as Medicare and TRICARE), federally-funded health sites (such as community health centers and rural clinics), and during federally-declared emergencies or disasters.

Regarding internet prescribing, state regulations should not interfere with the ability of a duly licensed and authorized healthcare provider from using telemedicine to prescribe, or dispense, for a patient with a pre-existing relationship, regardless of the patient's location, with the exception of federally controlled substances. Further, states should pursue policies that enforce prescription drug monitoring to mitigate the abuse, misuse, and diversion of controlled substances.

INCREASE FEDERAL COORDINATION AND ITS IMPACT ON TELEMEDICINE

The federal government has several mechanisms that directly affect the growth and use of telemedicine: paying for services under health benefits plans, providing telemedicine services directly, funding telemedicine projects and innovations, and regulating devices, services and related applications. There are numerous and diverse federal agencies with a role in telemedicine. ATA will encourage the Trump Administration and Congress to follow-through with:

- Federal reimbursement of federally-funded health providers (such as community health centers) for telehealth services.
- Coordination of telehealth policies based on a Presidential Executive Order and with high-level leadership for programs, regulations, and funding to maximize the federal return on investment and better serve peoples' needs. An example of policy tension is federal promotion of e-prescribing while wanting to control appropriate purchase of medications over the internet.
- Use of telehealth to achieve many of the federal government's interests, such as improving population health, sustaining leadership in innovation and improving government efficiency.

LEVERAGE THE FCC'S BROADBAND DEPLOYMENT AND UNIVERSAL SERVICE PROGRAMS

To maximize the value of telehealth, the Federal Communications Commission (FCC) should:

- Extend the availability, capacity, and quality of broadband infrastructure, to the maximum extent economically feasible.
- Encourage a nationwide grid with Federal support of network bridging between and among the hundreds of telemedicine networks in the U.S. to expand the reach of healthcare services and improve care management.
- Foster the development and deployment of 5G wireless connectivity.

- Update the Rural Health Program so that all rural Medicare and Medicaid telehealth sites are eligible for discounted rates.
- Use the Lifeline program for essential communications services, including broadband.

INTEGRATE EHR/HIE AND TELEMEDICINE

Electronic health records (EHRs) provide an important resource for providers using telemedicine. ATA will focus on:

- Federal efforts to enhance interoperability and health information exchange: The primary public purpose of EHRs should be nationwide exchange of health information. Health information exchanges (HIEs) should compile data from multiple EHRs to develop a longitudinal record for patients with high priority health conditions. EHRs and HIEs should be a means to improve patient access to needed health care, reduce disparities and more efficiently use scarce specialist resources. Unique patient and provider identifiers are necessary components for seamless health information exchange.
- Broader application of EHRs/HIEs and other data reporting: Federal "meaningful use" standards should apply to all federal health care programs. Higher EHR/HIE standards and performance reporting should be expected for government program innovations. Patient encounter data needs to reduce professional-related administrative burdens of licensure, credentialing and privileging as well as to augment the National Practitioner Data Bank.

BOOST EMERGENCY PREPAREDNESS AND RESPONSE

Existing applications and networks are potentially critical components of the emergency communications and response capabilities of a region -- including capacity to respond to health epidemics. The use of services such as alternate care sites, reach-back surge capacity, and access to advanced specialties, can prove critical in emergency situations. The federal government is in an important position to lead such efforts to ensure the coordination and usability of these resources for emergency communications.

IMPROVE INTERNATIONAL TELEMEDICINE POLICY AND UTILIZATION

ATA will work with a variety of international organizations to maintain a targeted, relevant set of policy priorities addressing the globalization of telemedicine -- especially the growing use of telemedicine across national borders. The driving forces behind ATA's international involvement reflect the varied interests of our members and leaders. These can be summarized in three goals:
- Trade promotion: Harmonize national policies and foster competitive innovation;
- Humanitarian: Assist those using telemedicine to provide services to populations without adequate access to healthcare, particularly in less developed nations; and
- Medical diplomacy: Support the use of healthcare services to bring about better cooperation and goodwill around the globe.

In Summary

We believe the Commission has a golden opportunity to achieve national needs for transforming healthcare delivery.

Patients, providers, and payors have increasing interest in using telehealth to reduce costs and improve the productivity of scarce health resources. Notably, over 30 states have enacted legislation requiring private health plans to treat covered services provided by telehealth the same as in-person services. Additionally, almost all major health plans are investing in the use of telemedicine to provide online services and remote monitoring for covered populations. The use of mobile technology and web-based services by health providers and consumers to access health information and services has risen dramatically in those geographic areas with the capacity to provide broadband wired and wireless connectivity.

Increasingly, access to healthcare is measured as much by access to broadband as proximity to a hospital. Thus, growing gaps in the availability of next-generation broadband services have expanded the chasm of healthcare between the haves and the have-nots. Overcoming this growing disparity is the great challenge facing the FCC.

We recommend the funding process be much less prescriptive for applicants and much more competitive for awards. To be less prescriptive we recommend paperwork and reporting requirements slashed to essentials and use of the broadest conceivable definition of rural for those aspects so restricted by statute. For example, using TRICARE's definition of rural would immediately double the eligible population and other federal agencies are better able to document the utilization and economic benefits of telehealth than the FCC, USAC and its individual awardees.

We suggest that the Commission retarget the Health Infrastructure Program away from construction toward other infrastructure costs associated with the Rural Healthcare Support and Health Broadband Services Programs. This would avoid duplicating other federal programs and better target the use of these healthcare funds for healthcare services. We propose that Rural Healthcare Support program continue to target the most rural health facilities that are faced with extreme costs for broadband services in conformance with Section 254(h)(1) of the Telecommunications Act with several enhancements to the program dealing with eligibility, grandfathering and the application process. We also suggest that the proposed expanded Health Broadband Services Program be available to all healthcare facilities not participating in the rural health care support program and should not be tied to a geographic definition.

Providing discounted broadband services but not adequately supporting the costs of installation or related equipment to connect to the network is tantamount to building a highway with no on or off ramps.

- Wireless networks are cost effective for network deployment and health facilities and therefore health care facilities should be allowed to use both programs to purchase end-point wireless connectivity as part of the related telecommunications equipment.

- Leasing dark fiber should be allowed as an expense but the owner of the fiber then be required to meet universal service fund requirements.

- EMS provider facilities should be an eligible provider.

- Discounts for eligible services should be clarified, increased and better aligned.

We recommend that the Commission consider more sweeping changes that include moving the program out of its current administrative structure and, instead, employ a partnering arrangement with other government programs that will ensure coordination, take advantage of their expertise in healthcare and knowledge of how this program can best be used on the local level. Two suggestions:

- Transfer all or a portion of the administration and operation of the program to a federal agency with experience in healthcare and managing local assistance programs. The most likely agency would be the Health Resources and Services Administration in the Department of Health and Human Services although programs operated in the Departments of Agriculture or Commerce may be good alternatives.

- Operate the program in conjunction with state health and public service agencies, perhaps providing flexibility in how the states choose to use the funds.

This is a momentous time for healthcare. Healthcare costs may accelerate and quality and access decline as the population ages and provider shortages accelerate. Advanced technology and telecommunications services, carefully developed and integrated into existing health delivery systems can be a benefit to the nation. Many uses of telemedicine, no longer a hypothetical possibility, have proven to simultaneously expand access to health services and lower the costs of delivery while improving the quality of care provided to the citizens of the United States. We believe the Commission has an important role to play in providing the broadband infrastructure that will accelerate its use.

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